

**IN THE CLAIMS:**

1. (Currently Amended) A method for forming semiconductor film single-crystal domains, the method comprising:
  - forming a substrate;
  - forming a single-crystal seed overlying the substrate, selected from the group including a nanowire and a self assembled monolayer (SAM);
  - forming an amorphous film overlying the seed;
  - annealing the amorphous film; and,
  - forming a single-crystal domain in the film responsive to the single-crystal seed.
2. (Original) The method of claim 1 wherein forming an amorphous film overlying the seed includes forming a film from a material selected from the group including silicon and silicon-germanium.
3. (Original) The method of claim 2 wherein annealing the amorphous film includes annealing with a process selected from the group including laser annealing, laser induced lateral growth (LiLAC), and furnace annealing.
4. (Original) The method of claim 3 wherein forming a substrate includes forming a substrate from a material selected from the group including glass, plastic, metal, and silicon.

5. (Original) The method of claim 4 further comprising prior to forming the single-crystal seed, forming an insulator film overlying the substrate.

6. (Original) The method of claim 5 wherein forming an insulator film overlying the substrate includes forming the insulator layer from a material selected from the group including SiO<sub>2</sub>, SiNx, and combinations of SiO<sub>2</sub> and SiNx.

7. Canceled

10. (Currently Amended) The method of claim [[7]] 1 wherein forming a single-crystal seed includes forming a single-crystal seed having a crystallographic orientation selected from the group including <110> and <100>.

7. (Original) The method of claim 6 wherein forming a single-crystal seed includes forming a nanowire having a diameter in the range of 2 to 50 nanometers and a length in the range of 10 to 1000 microns.

11. (Currently Amended) The method of claim [[7]] 1 wherein forming a single-crystal seed includes forming a plurality of seeds overlying the substrate; and,

wherein forming a single-crystal domain in the film responsive to the seed includes forming a plurality of single-crystal domains, each domain responsive to a corresponding seed.

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11. (Original) The method of claim 6 wherein annealing the amorphous film includes annealing using the LiLAC process with a beamlet width less than 20 microns.

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12. (Original) The method of claim 11 wherein annealing the amorphous film includes annealing using the LiLAC process with a beamlet width less than 10 microns.

13. (Currently Amended) The method of claim [[7]] 1 wherein forming a single-crystal seed includes forming a nanowire with a first length; and,

wherein annealing the amorphous film includes annealing using the LiLAC process with a beamlet length greater than the first length.

14. (Currently Amended) The method of claim [[7]] 1 wherein forming a single-crystal seed includes forming a plurality of single-crystal seeds; and,

wherein annealing the amorphous film includes annealing using the LiLAC process with a beamlet length sufficient to simultaneously irradiate a plurality of seeds.

15. (Currently Amended) The method of claim [[7]] 1 wherein annealing the amorphous film using the LiLAC process includes step-and-repeat annealing in a first direction; and,

wherein forming a single-crystal domain in the film includes forming a single-crystal domain laterally grown in the first direction, having a length of greater than 50 microns.

16. (Original) The method of claim 15 wherein forming a single-crystal domain in the film includes forming a single-crystal domain laterally grown in the first direction, having a length of greater than 100 microns.

17. (Currently Amended) The method of claim [[7]] 1 wherein forming a single-crystal seed overlying the substrate includes depositing the single-crystal seed overlying a selected area of the substrate.

18. (Original) The method of claim 17 wherein depositing the single-crystal seed overlying a selected area of the substrate includes:

depositing a plurality of seeds overlying the substrate;  
forming a mask over the selected area of the substrate; and,  
etching the seeds from the unmasked areas.

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19. (Currently Amended) The method of claim [[7]] 1 wherein forming a single-crystal seed includes depositing a plurality of single-crystal seeds overlying the substrate, including a first seed, overlying a first area of the substrate; and,

wherein forming a single-crystal domain includes:

forming the single-crystal domain in response to annealing the first seed; and,  
recrystallizing the plurality of seeds in the crystallographic orientation of the first seed.

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20. (Original) The method of claim 17 wherein forming a single-crystal seed overlying the substrate includes depositing a nanowire having a length in a first direction with respect to the underlying substrate.

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21. (Original) The method of claim 10 wherein forming an amorphous film overlying the seed includes forming an amorphous Si film; and,  
the method further comprising:  
forming a plurality of pixel areas, each pixel area corresponding to the plurality of single-crystal domains.

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22. (Currently Amended) The method of claim [[7]] 1 wherein forming an amorphous film overlying the seed includes forming an amorphous Si film; and,  
the method further comprising:  
forming a liquid crystal display (LCD) pixel area in the single-crystal domain.

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23. (Currently Amended) The method of claim [[7]] 1 wherein forming an amorphous film overlying the seed includes forming an amorphous Si film; and,

the method further comprising:  
forming thin-film transistors (TFTs) in the single-crystal  
domain.

<sup>23</sup>  
~~24.~~ (Original) The method of claim <sup>22</sup>~~23~~ wherein forming  
a single-crystal seed includes forming a seed with a <100>  
crystallographic orientation; and,

wherein forming TFTs in the single-crystal domain includes  
forming an n-type TFT.

<sup>24</sup>  
~~25.~~ (Original) The method of claim <sup>22</sup>~~23~~ wherein forming  
a single-crystal seed includes forming a seed with a <110>  
crystallographic orientation; and,

wherein forming TFTs in the single-crystal domain includes  
forming a p-type TFT.

26-50. Canceled